Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_

291 Chapter 1.1-1.3 Notes

1.1 Expressions and Formulas 1.3 Solving Equations

1.2 Properties of Real Numbers

Order of operations (What does each letter stand for?)

P\_\_\_\_\_\_\_\_\_E\_\_\_\_\_\_\_\_\_ M\_\_\_\_\_\_\_\_\_ D\_\_\_\_\_\_\_\_\_ A\_\_\_\_\_\_\_\_\_ S\_\_\_\_\_\_\_\_\_

Variable—symbol or letter used to represent an unknown quantity

Algebraic expression—expression that contains at least one variable

Formula—mathematical sentence that expresses the relationship between certain quantities

Real numbers(R)—all numbers used in everyday life

Rational(Q)—rational numbers are real numbers that can be expressed as a ratio of two integers, where the denominator cannot be zero

Ex: 2, -8.456, ½ , .3

Irrational(I)—real numbers that are not rational

Ex: π, 

Types of Rational Numbers

Integers(Z) or (J)—{…-2, -1, 0, 1, 2, …}

Whole(W)—{0, 1, 2, 3, …}

Natural(N)—{1, 2, 3, 4, …}

Complete the Venn diagram: The rectangle represents all real numbers, R.



**Properties of Real Numbers and Equality (Sections 1-3, pgs. 12-21)**

Use the charts in the book, to fill in the appropriate description for each property.

**(real)**

Commutative\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Associative\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Identity\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Inverse\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Distributive\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reflexive\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Symmetric\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Transitive\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Substitution\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Addition\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Subtraction\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Multiplication\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Division\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Complete the following problems on loose leaf:**

**p. 9 #s 19-31odd, 45, 49; p. 15-16 #s 19-26, 28-39, 43, 44; p. 25 #s 35-40**